

	AXLE #1	AXLE #2	AXLE #3	AXLE #4	AXLE #5	AXLE #6	AXLE #7	AXLE #8	AXLE #9	AXLE #10
STEERING	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES
AXLE WIDTH	8'-8"	8'-2"	8'-2"	10'-0"	10'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"
SUSPENSION TYPE	COIL	LEAF	WALKING BEAM	WALKING BEAM	WALKING BEAM	WALKING BEAM	WALKING BEAM	WALKING BEAM	WALKING BEAM	WALKING BEAM
TIRES PER AXLE	2	2	8	8	8	8	8	8	8	8
TIRE SIZE	LT275/65R18	LT275/65R18	235/75R17.5	235/75R17.5	235/75R17.5	235/75R17.5	235/75R17.5	235/75R17.5	235/75R17.5	235/75R17.5
TIRE RATING	3,415	3,415	5,675	5,675	5,675	5,675	5,675	5,675	5,675	5,675
TARE WT.	3,240	2,370	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
PAYLOAD	0	1,600	21,500	21,500	21,500	21,500	39,500	39,500	39,500	39,500
TOTAL WT.	3,240	3,970	28,000	28,000	28,000	28,000	46,000	46,000	46,000	46,000
PURPLE LOAD	N/A	N/A	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000

**20' WIDE DUAL LANE DOLLY:**  
MANUFACTURER: RACKLEY BILT CUSTOM TRAILERS  
MODEL NUMBER: N/A (NO MODEL NUMBER)  
STRETCH: N/A (NOT STRETCHABLE OR COLLAPSIBLE)  
EXPANDABLE: 15' MIN. TO 20' MAX. WIDTH  
LIFT, FLIP, OTHER: NONE  
MECH. DIST: NONE  
SPECIAL EQUIP: NONE  
STEERING: 38° STEERING ON 4 GROUPS (SEE SH. 3 FOR DETAILS)

**PAYLOAD FORWARD END:**  
ORBITER = 39,500 LBS  
OLT = 10,500 LBS  
BEAMS = 25,000 LBS  
BOLSTER = 8,500 LBS  
MISC. = 2,500 LBS  
P<sub>FWD</sub> = 86,000 LBS

**PAYLOAD REAR END:**  
ORBITER = 110,500 LBS  
OLT = 15,000 LBS  
BEAMS = 14,000 LBS  
BOLSTER = 18,000 LBS  
MISC. = 500 LBS  
P<sub>REAR</sub> = 158,000 LBS

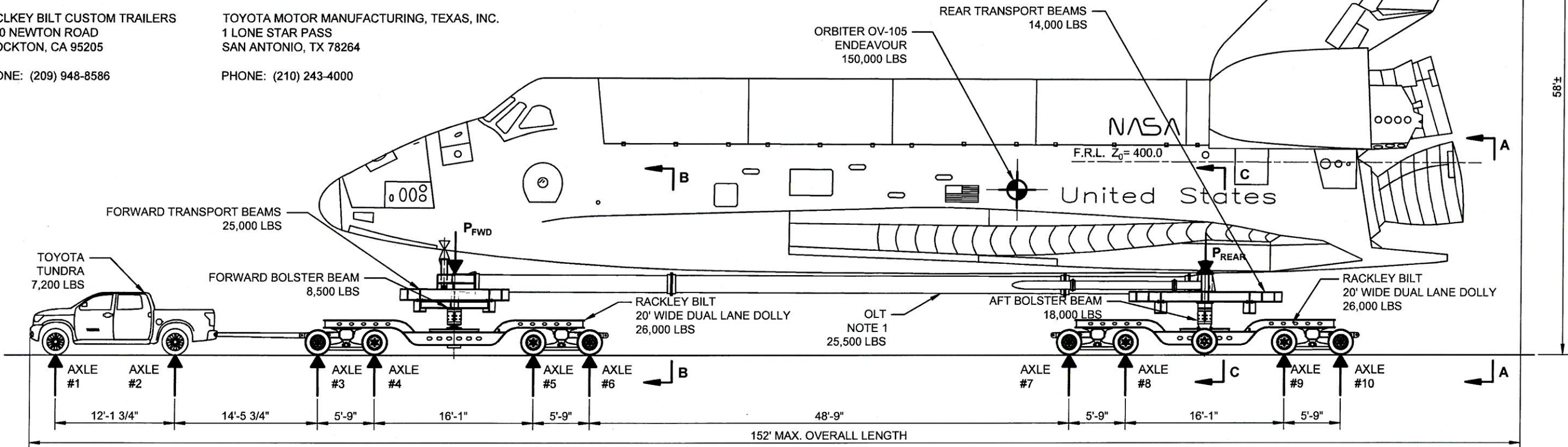
**NOTES:**  
1) OLT = OVER LAND TRANSPORTER. THIS IS A TRANSPORT FRAME FOR THE ORBITER THAT IS PROVIDED BY NASA.  
2) POSITION STABILIZER WHEELS 1" MAX. CLEAR OF ROAD SURFACE.

**TOYOTA TUNDRA:**  
MANUFACTURER: TOYOTA MOTOR MANUFACTURING, TEXAS, INC.  
MODEL NUMBER: CREWMAX 4X4  
STRETCH: N/A  
EXPANDABLE: N/A  
LIFT, FLIP, OTHER: NONE  
MECH. DIST: NONE  
SPECIAL EQUIP: NONE  
STEERING: AXLE #1 STEER, AXLE #2 FIXED

EQUIPMENT MANUFACTURER INFORMATION:

RACKLEY BILT CUSTOM TRAILERS  
4350 NEWTON ROAD  
STOCKTON, CA 95205  
PHONE: (209) 948-8586

TOYOTA MOTOR MANUFACTURING, TEXAS, INC.  
1 LONE STAR PASS  
SAN ANTONIO, TX 78264  
PHONE: (210) 243-4000



ORBITER ENDEAVOUR (OV-105) ON CALTRANS LEGAL TRANSPORT EQUIPMENT - SIDE ELEVATION VIEW

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REV	DESCRIPTION	DRAWN	CHECKED	APPROVED
2	ADD STABILIZERS	10/04/12	TPO	10/7/12 PPO
1	REV. TOW VEHICLE AND ORBITER WT.	08/24/12	FRD	08/24/12 FRD
0	ORIGINAL ISSUE	07/10/12	FRD	

CLIENT  
**CALIFORNIA SCIENCE CENTER  
SHUTTLE ENDEAVOUR  
RELOCATION PROJECT**

TITLE  
**ORBITER OV-105  
TRANSPORT DETAILS  
MANCHESTER AVE. BRIDGE**



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group

SCALE 3/32"=1'	SIZE B	All rights reserved
DWG NO 3272-216	SHEET 1/4	STATUS APPROVED

TYPE:	HYDRAULIC PLATFORM TRAILER
MAKE & MODEL:	KAMAG TYPE 2400-S
CONFIGURATION:	4-LINE DOUBLE WIDE

NET WT: ORBITER AND OLT (PAYLOAD) = 59.0 KIP

BEAMS, CWT, AND MISC. =	20.0 KIP
2 PWR UNIT @ 13.2 KIP EA	26.4
TOTAL NET WEIGHT =	105.4 KIP

GROSS LOAD/AXLE (NOTE 7): 22.3 KIP

GROSS LOAD/TIRE: 5.6 KIP

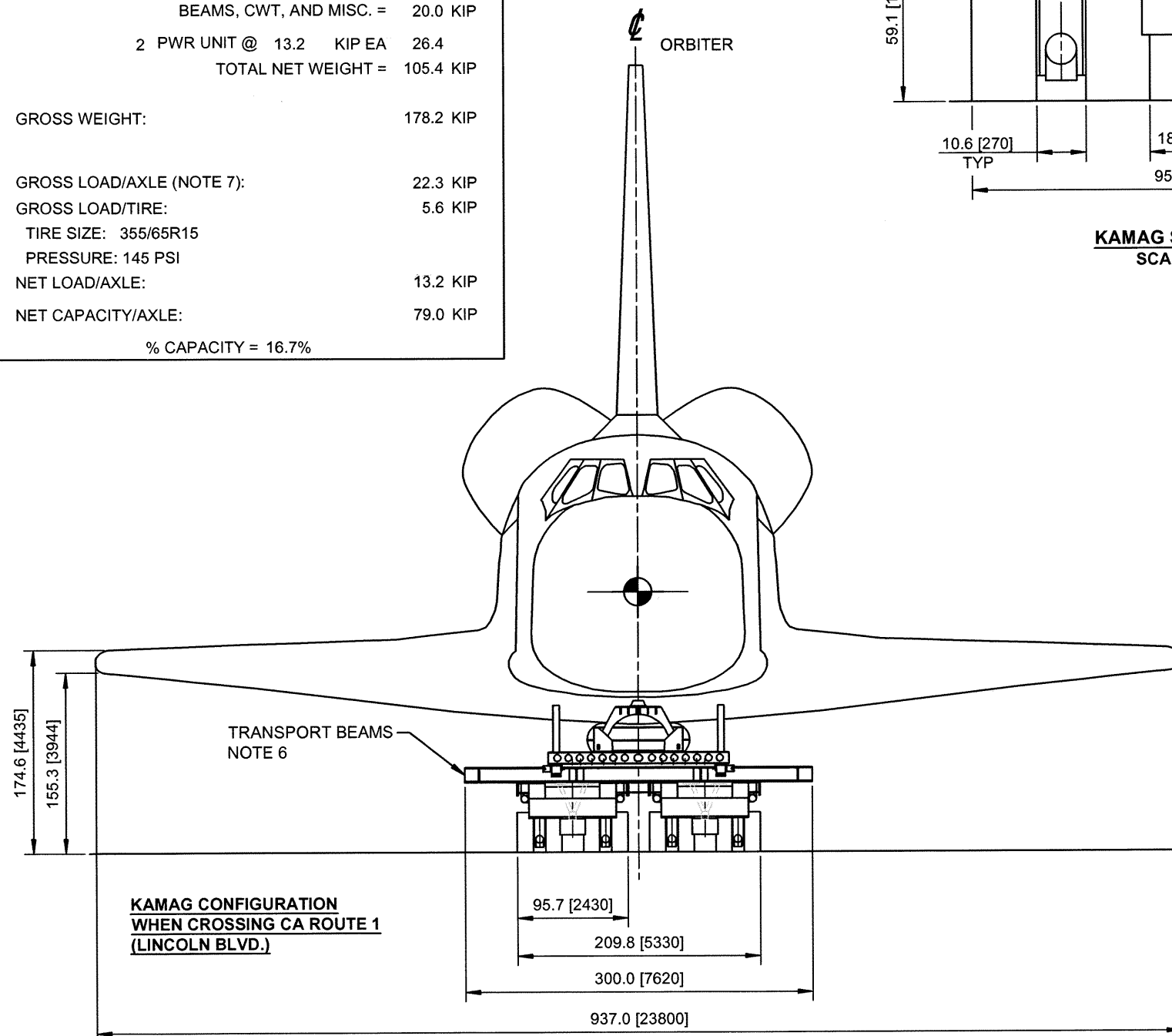
TIRE SIZE: 355/65R15

PRESSURE: 145 PSI

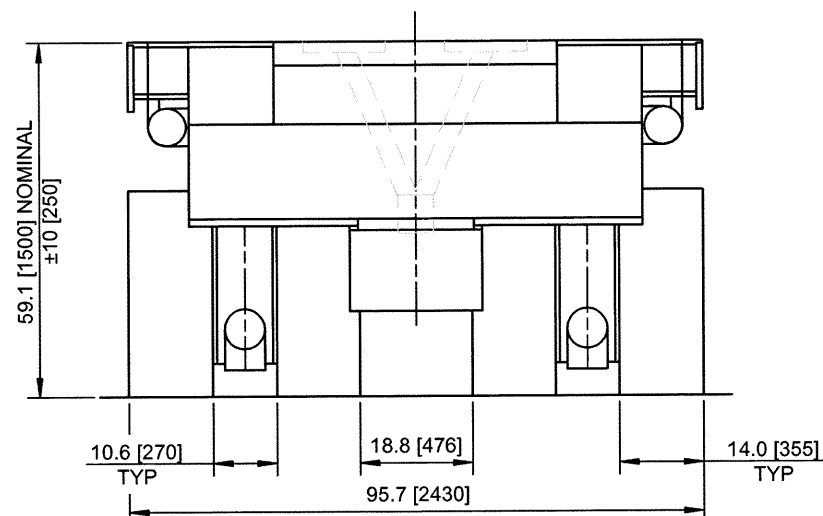
NET LOAD/AXLE: 13.2 KIP

NET CAPACITY/AXLE: 79.0 KIP

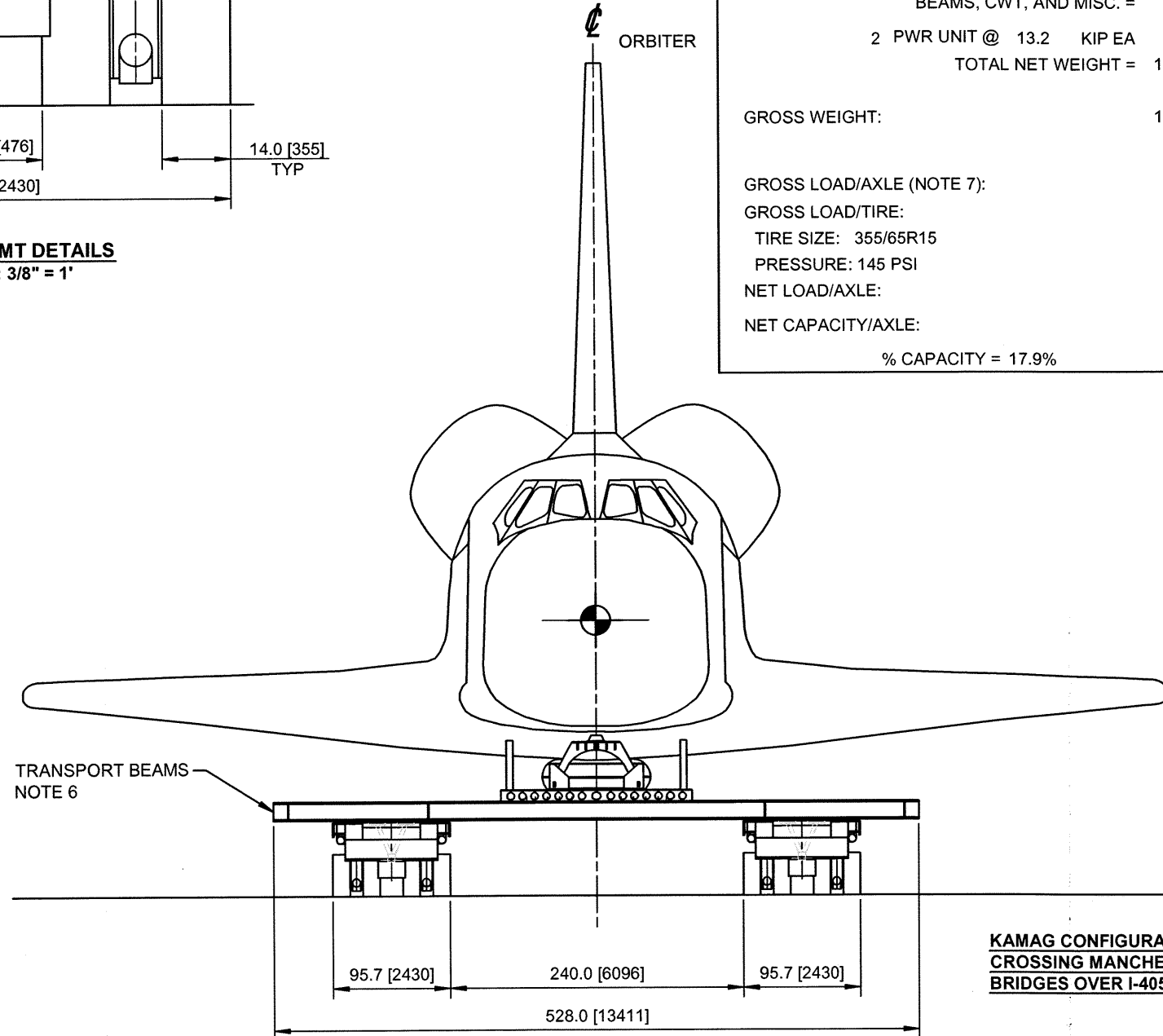
% CAPACITY = 16.7%



**SECTION** **B**  
**FORWARD TRAILERS**  
**NARROW CONFIGURATION**  
**NOTE 8**



**KAMAG SPMT DETAILS**  
**SCALE: 3/8" = 1'**



**SECTION**  
**FORWARD TRAILERS**  
**WIDE CONFIGURATION**  
**NOTE 5**

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1	REV. BEAM WEIGHTS	06/18/12	FRD			6/18/12	FRD
0	ORIGINAL ISSUE	01/30/12	FRD				
REV.	DESCRIPTION	DRAWN	CHECKED			APPROVED	

CLIENT

**CALIFORNIA SCIENCE CENTER  
SHUTTLE ENDEAVOUR  
RELOCATION PROJECT**

TITLE
-------

## ORBITER 0V-105 CG TRANSPORT G.A. AND AXLE LOADS

**sarens**  
group

SCALE
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 $3/32"=1'$ 

DWG NO.

DWG NO  
0070-010

SIZE
------

B

CLIFF

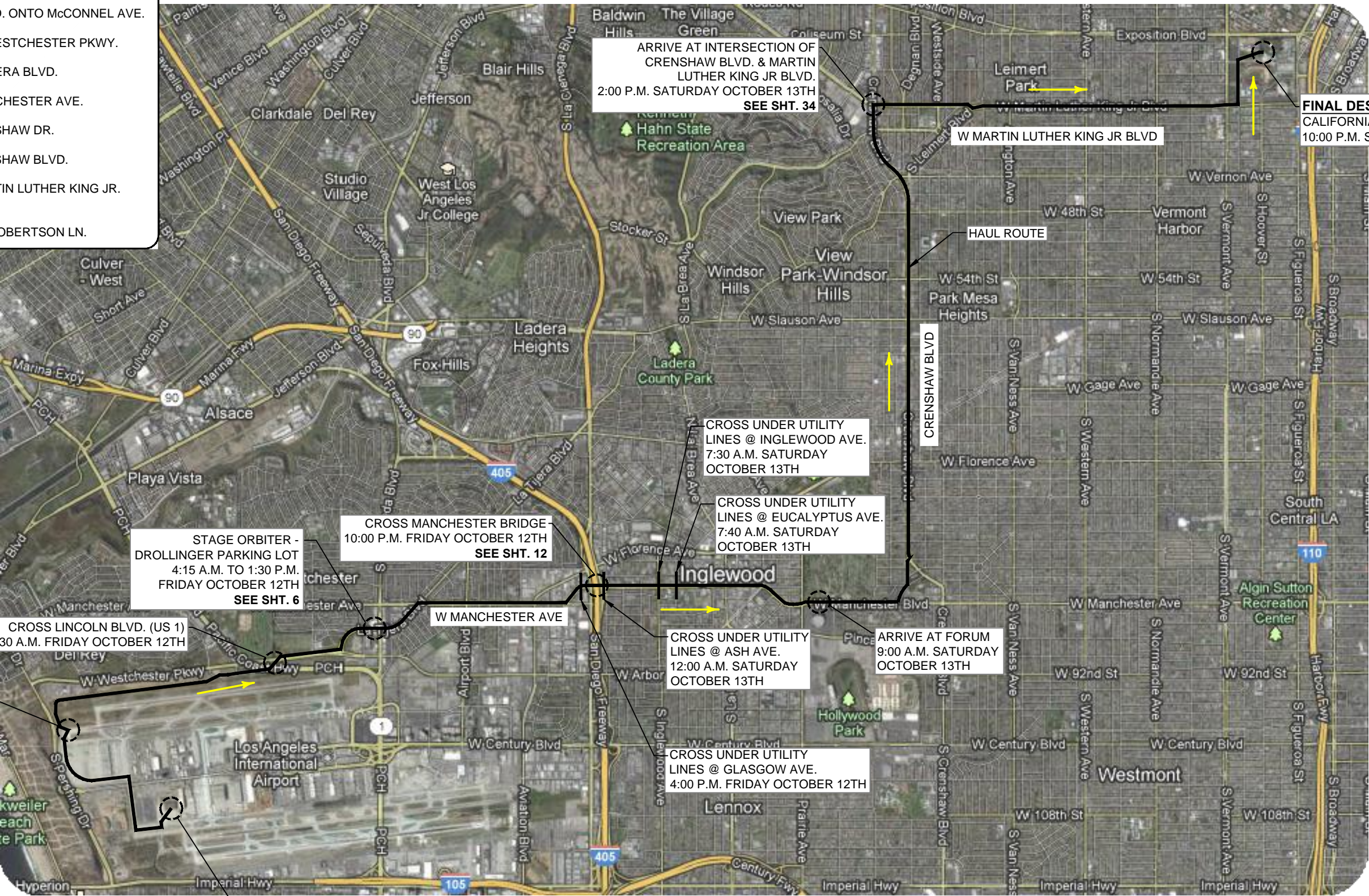
SHEE

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HAUL ROUTE:

- 1) EXIT LAX ONTO NORTHSIDE PKWY.
- 2) CROSS LINCOLN BLVD. ONTO McCONNEL AVE.
- 3) TURN RIGHT ON N. WESTCHESTER PKWY.
- 4) TURN LEFT ON LA TIJERA BLVD.
- 5) TURN RIGHT ON MANCHESTER AVE.
- 6) TURN LEFT ON CRENSHAW DR.
- 7) TURN LEFT ON CRENSHAW BLVD.
- 8) TURN RIGHT ON MARTIN LUTHER KING JR. BLVD.
- 9) TURN LEFT ON BILL ROBERTSON LN.



CROSS RUNWAY 6R-24L  
12:30 A.M. FRIDAY  
OCTOBER 12TH

CROSS LINCOLN BLVD. (US 1)  
2:30 A.M. FRIDAY OCTOBER 12TH

STAGE ORBITER -  
DROLLINGER PARKING LOT  
4:15 A.M. TO 1:30 P.M.  
FRIDAY OCTOBER 12TH  
SEE SHT. 6

CROSS MANCHESTER BRIDGE  
10:00 P.M. FRIDAY OCTOBER 12TH  
SEE SHT. 12

CROSS UNDER UTILITY  
LINES @ INGLEWOOD AVE.  
7:30 A.M. SATURDAY  
OCTOBER 13TH

CROSS UNDER UTILITY  
LINES @ EUCALYPTUS AVE.  
7:40 A.M. SATURDAY  
OCTOBER 13TH

CROSS UNDER UTILITY  
LINES @ ASH AVE.  
12:00 A.M. SATURDAY  
OCTOBER 13TH

CROSS UNDER UTILITY  
LINES @ GLASGOW AVE.  
4:00 P.M. FRIDAY OCTOBER 12TH

ARRIVE AT FORUM  
9:00 A.M. SATURDAY  
OCTOBER 13TH

ARRIVE AT INTERSECTION OF  
CRENSHAW BLVD. & MARTIN  
LUTHER KING JR BLVD.  
2:00 P.M. SATURDAY OCTOBER 13TH  
SEE SHT. 34

FINAL DESTINATION  
CALIFORNIA SCIENCE CENTER PAVILION  
10:00 P.M. SATURDAY OCTOBER 13TH

STARTING POINT  
LAX AIRPORT  
LEAVE UNITED HANGAR  
11:30 P.M. THURSDAY  
OCTOBER 11TH

PLAN VIEW - ORBITER OV-105 HAUL ROUTE FROM LAX AIRPORT TO CALIFORNIA SCIENCE CENTER

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REV	DESCRIPTION	DRAWN	CHECKED	APPROVED
0	ORIGINAL ISSUE	09/30/12	JMB	

CLIENT  
CALIFORNIA SCIENCE CENTER  
SHUTTLE ENDEAVOUR  
RELOCATION PROJECT

TITLE  
HAUL ROUTE  
LIGHT POLE & TRAFFIC SIGNAL  
CONFLICTS



SCALE 1"=100'-0"	SIZE B	All rights reserved
DWG NO 3272-500	SHEET -	STATUS APPROVED



